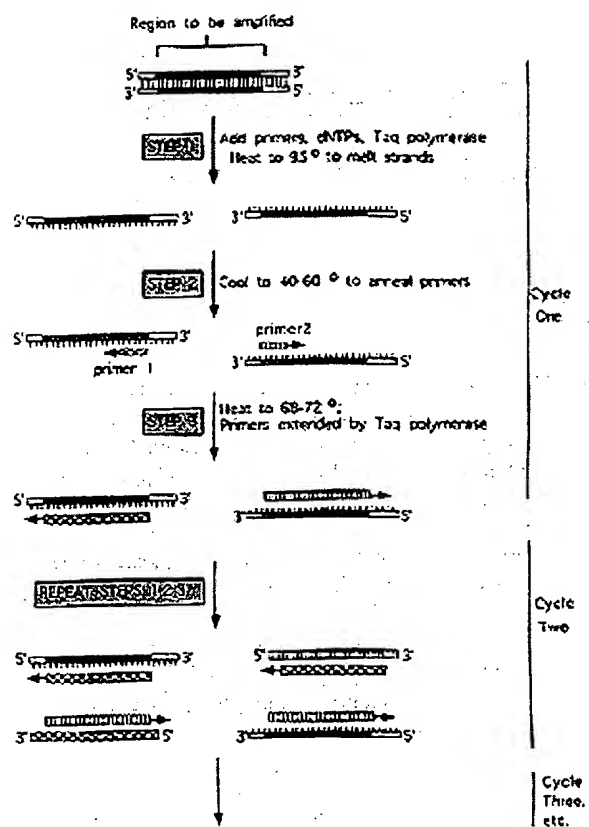


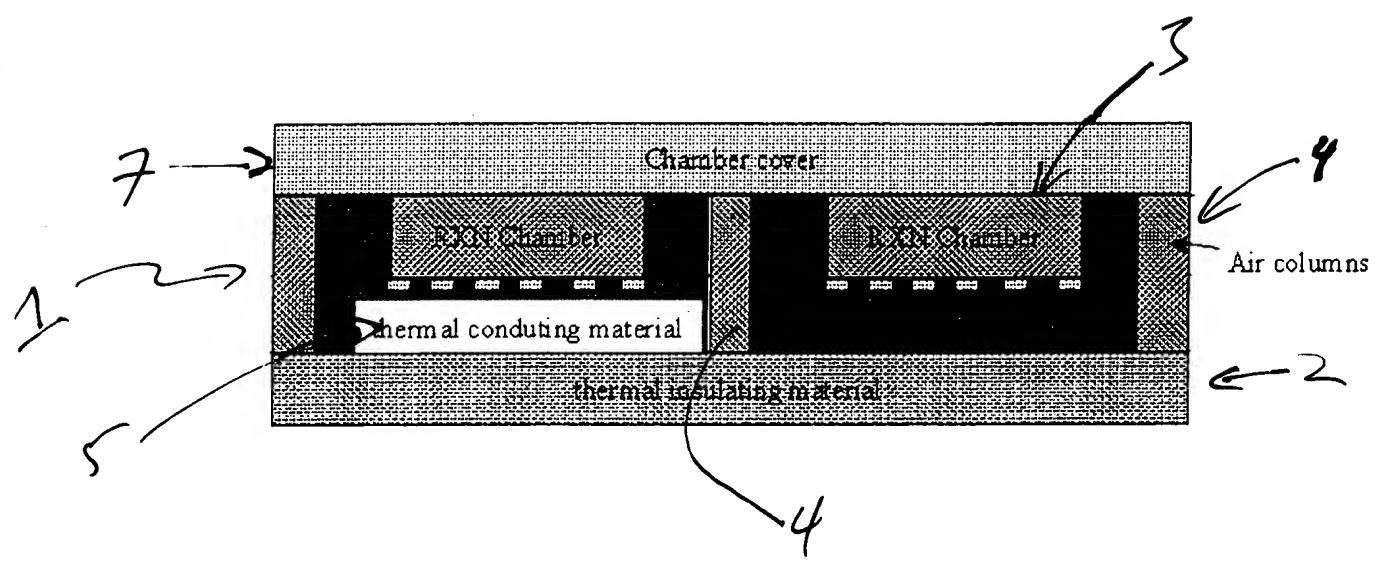
0346333 121799  
65747 6269450

Fig. 1



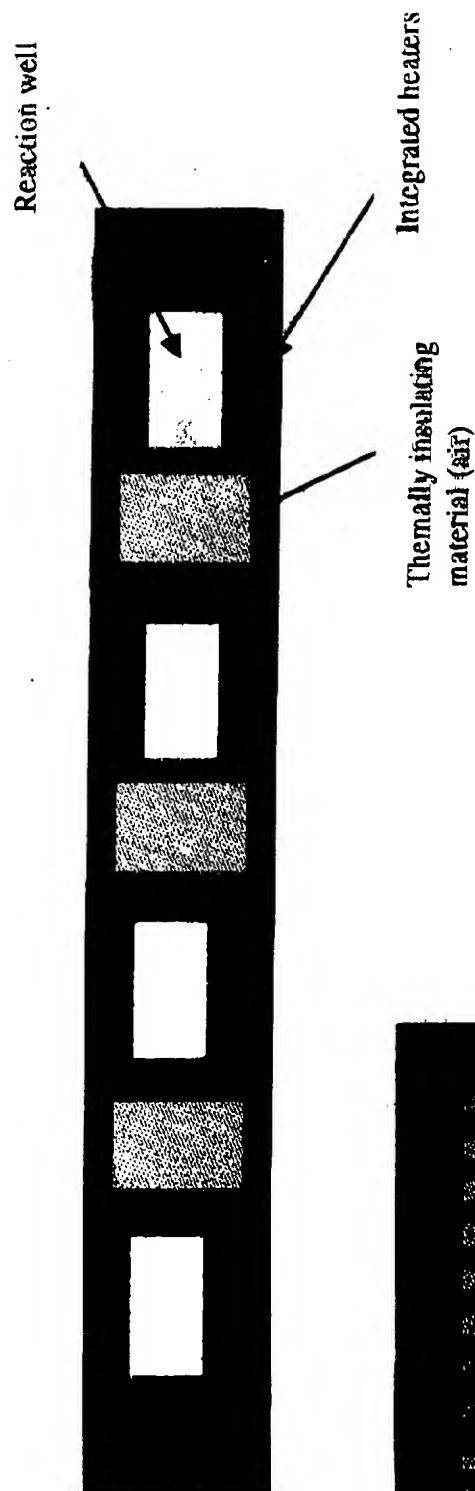
65747 22E99450

Fig. 2

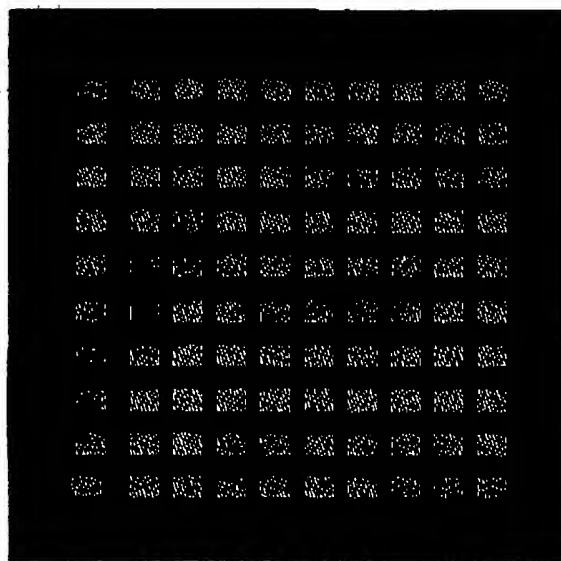


**Fig. 3**

# Microchip PCR Array



- Integrated & independent heaters
- Multiple sample parallel testing (high throughput)



### Example of column - row addressing

# Ceramic micro-PCR Heater Array-Final Design

4 X 4 Array of Reaction Wells  
with Embedded Heaters and  
an Embedded RTD

Fig. 4A

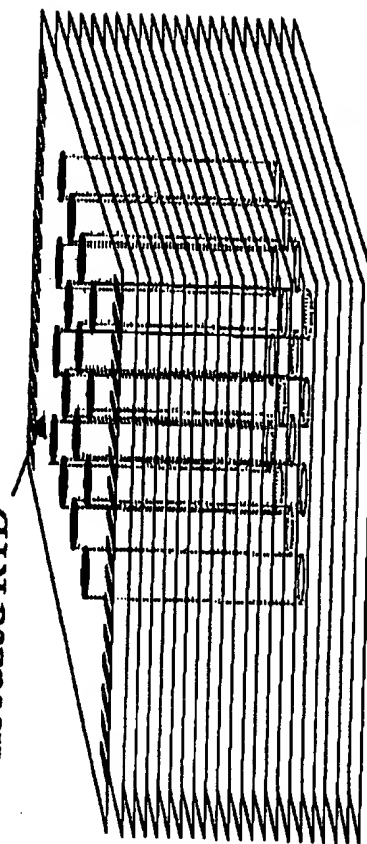
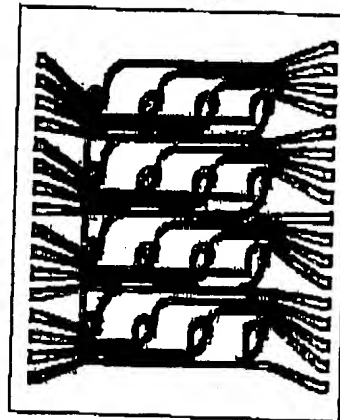
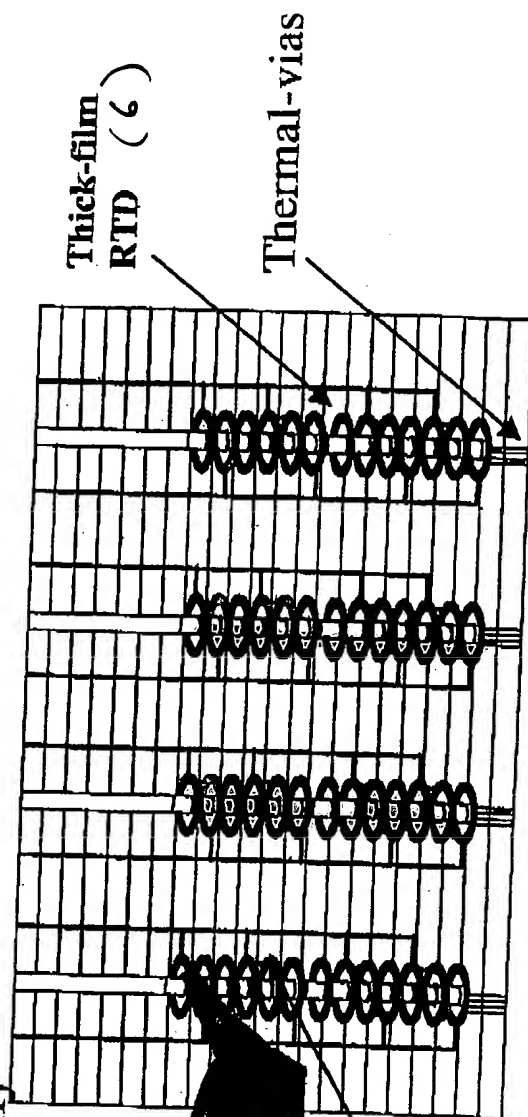


Fig. 4B

Device Anatomy



Embedded Heaters-  
4 Sets of Heaters in Parallel  
3 Heaters in Each Set in Series



0346326 121799

Fig. 5

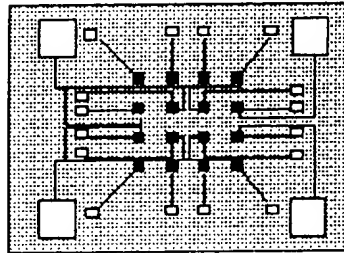
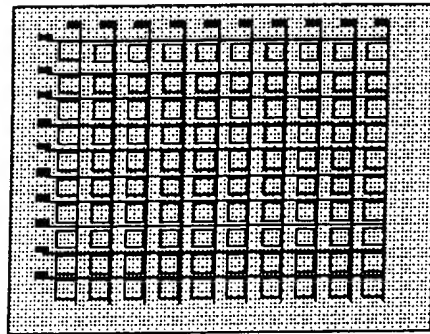
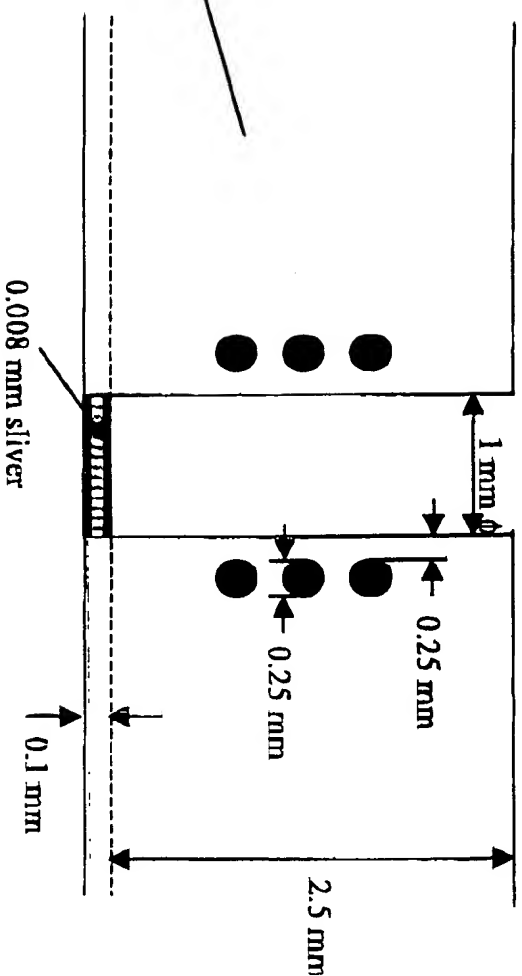
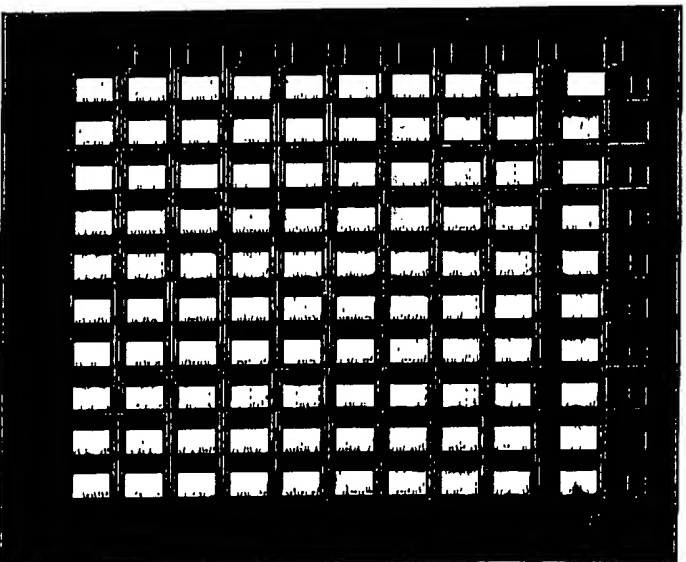


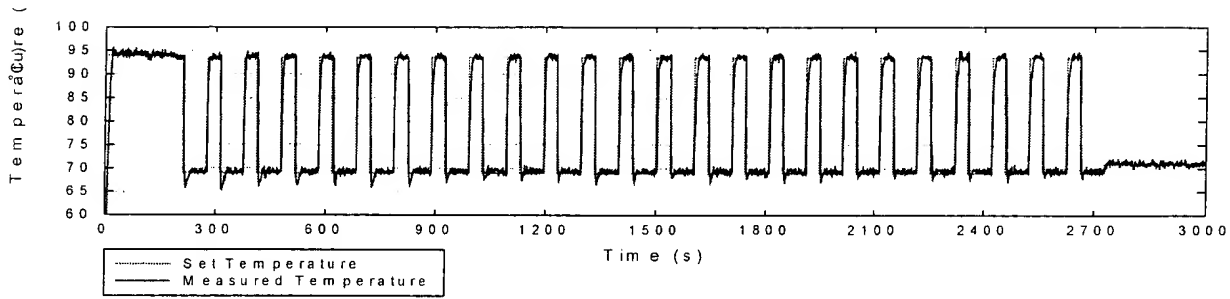
Fig. 6

# Schematic of Array with Integrated Heaters with Active Cooling

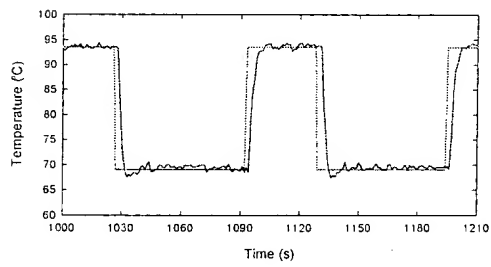


Fig. 7

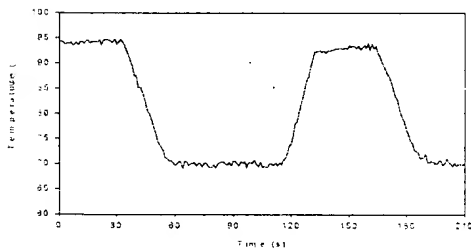




**Fig. 8A**



**Fig. 8B**



**Fig. 8C**

0946323 424759

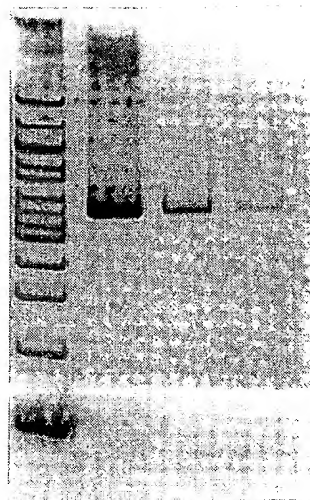


Fig. 9